

U.S. Patent Application Serial No. 10/715,127
Reply to OA dated February 7, 2006

REMARKS

The Applicants wish to thank the Examiner for the courtesies and suggestions provided to their representative at the interview conducted at the USPTO on June 2, 2006 during which the present amendment and prior art were discussed.

Claims 1, 11, 12, 15, 16, 18 and 19 are amended in order to more clearly define the claimed invention. The Applicants respectfully submit that no new matter is entered. It is believed that this response is fully responsive to the Office Action dated February 7, 2006.

The present invention is a storage apparatus for storing samples on containers inside a chamber adjusted to predetermined ambient conditions. The storage apparatus is characterized in that a container transport device is disposed inside the chamber centrally thereof and has a transport table for placing the container thereon, and a drive mechanism for driving the transport table in the direction of X-axis and the direction of Y-axis which are orthogonal on a horizontal plane, and in the direction of Z-axis orthogonal to these directions. A container accommodating rack is disposed on each of opposite sides of the transport device which sides are along the direction of X-axis, the accommodating rack has container accommodating portions which are arranged at all times, solely along one plane including Y-axis and Z-axis in the direction of Y-axis and in the direction of Z-axis for accommodating therein respective containers. The container is movable into or out of the desired container accommodating portion of the desired rack by the transport device.

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Claims 1, 3, 5 and 11 are rejected under 35 U.S.C. §102(b) as being anticipated by Helwig et al., (U.S. Patent No. 6,129,428). Reconsideration and removal of this rejection is respectfully requested.

It is respectfully submitted that the device of Helwig et al. is a cylindrical type storage device. The present claimed invention of the orthogonal axes type is clearly distinct from the device of Helwig et al. The present claimed invention has a container transport device which is driven along X, Y and Z directions of an orthogonal axes system and the claimed container accommodating portions are arranged at all times solely along the Y-axis and Z-axis of the same orthogonal axes system on each of opposite sides of the container transport device. In Helwig et al. the container accommodating portions are arranged radially from a center of a circle, as shown in Fig. 3a having carousels 7a and 7b.

Claim 1 has been amended to more clearly recite that each of the accommodating racks has container accommodating portions arranged at all times, solely along one plane including Y-axis and Z-axis in the direction of Y-axis and in the direction of Z-axis for accommodating therein respective containers, as shown in Fig. 19.

With the storage apparatus of the present invention, because the container accommodating portions are arranged at all times, solely along one plane including Y-axis and Z-axis, the transport table of the transport device may be displaced in the XYZ triaxial direction when the container is taken out or put in, so that there is no need to displace the container accommodating rack. Thus, a container accommodated in the rack will not receive vibrations, and therefore the sample on the container can be prevented from being adversely affected. In contrast, with the storage device of Helwig et al., it is necessary to rotate the cylindrical container accommodating rack when a container is taken out or put in,

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and therefore the container accommodating rack could vibrate to adversely affect the sample on the container.

In view of the differing axes systems of the present claimed invention and the device of Helwig et al., removal of the rejection of Claims 1, 3 and 5 is respectfully requested.

Regarding Claim 11, Claim 11 is amended to include a feature of original Claim 12 and therefore is discussed below under the rejection of Claim 12.

Claim 15 is rejected under 35 U.S.C. §102(e) as being anticipated by Weselak (U.S. Published Patent Application No. 20030031602). Reconsideration and removal of this rejection is respectfully requested.

Claim 15 is presently amended to depend from Claim 1. In view of the above remarks regarding Claim 1 and the fact that Weselak discloses a cylindrical type incubation device and does not disclose the features of Claim 1, removal of this rejection is respectfully requested.

Claims 18-21 are rejected under 35 U.S.C. §102(e) as being anticipated by Barbera-Guillem (U.S. Patent No. 6,673,595). Reconsideration and removal of this rejection is respectfully requested.

Claims 18 - 21 are presently amended to depend from Claim 1. In view of the above remarks regarding Claim 1 and the fact that Barbera-Guillem discloses a cylindrical type system and does not disclose or suggest the features of Claim 1, removal of this rejection is respectfully requested.

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Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Helwig et al. as applied to Claim 1, and further in view of Goffe (U.S. Patent No. 5,882,918). Reconsideration and removal of this rejection is respectfully requested.

Claim 2 depends from Claim 1. In view of the above remarks regarding Claim 1 and the fact that Goffe does not disclose or suggest the features of Claim 1, removal of this rejection is respectfully requested.

Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Helwig et al. as applied to Claim 3, and further in view of Yahiro (U.S. Patent No. 6,228,636) and Gonska et al. (U.S. Patent No. 6,568,770). Reconsideration and removal of this rejection is respectfully requested.

It is respectfully submitted that Gonska et al. does not disclose or suggest the presently claimed plurality of stackers (3) constituting the accommodating rack mounted on a drawer (22) installed on a base (21) and slidable in the direction of Y-axis, which is best viewed in present Fig. 2. In Fig. 5 of Gonska, alleged drawer (11) is said to be a mounting plate, and it is not slideable, as presently claimed.

In view of such lack of disclosure by Gonska et al., and of Claim 4 depending from Claim 1, which is discussed above, removal of this rejection is respectfully requested.

Claims 6 and 10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Helwig et al. as applied to Claims 1 and 5, and further in view of Yahiro et al. (U.S. Patent No. 6,228,636). Reconsideration and removal of this rejection is respectfully requested.

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It is respectfully submitted that Yahiro et al. does not disclose or suggest the claimed moving of the transport table in the direction of Y-axis and direction of Z-axis at predetermined timing to thereby promote the circulation of air inside the chamber, as alleged in the Office Action. In Yahiro et al. it is taught that a shelf (10) is lifted and rotated as an agitating operation, not a transport table.

In view of such lack of disclosure and of Claims 6 and 10 depending from Claim 1, which is discussed above, removal of this rejection is respectfully requested.

Claim 7 is rejected under 35 U.S.C. §103(a) as being unpatentable over Helwig et al. as applied to Claim 5, and further in view of Khan (U.S. Patent No. 3,618,734). Reconsideration and removal of this rejection is respectfully requested.

In view of Claim 7 depending from Claim 1, which is discussed above, and the fact that Kahn does not disclose or suggest the features of Claim 1, removal of this rejection is respectfully requested.

Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over Helwig et al. as applied to Claim 1, and further in view of Smith et al. (U.S. Patent No. 6,690,994). Reconsideration and removal of this rejection is respectfully requested.

In view of Claim 8 depending from Claim 1, which is discussed above, and the fact that Smith et al. does not disclose or suggest the features of Claim 1, removal of this rejection is respectfully requested.

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Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Helwig et al. as applied to Claim 1, and further in view of Kremerman (U.S. Published Patent Application No. 20040001750). Reconsideration and removal of this rejection is respectfully requested.

In view of Claim 9 depending from Claim 1, which is discussed above, and the fact that Kremerman does not disclose or suggest the features of Claim 1, removal of this rejection is respectfully requested.

Claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over Helwig et al. as applied to Claim 11, and further in view of Kapka et al. (U.S. Patent No. 5,635,398). Reconsideration and removal of this rejection is respectfully requested.

Claim 11 is amended to include the feature of Claim 12 and additionally to include that “air is introduced from outside the chamber into the motor case and discharged from inside the motor case to outside the chamber to circulate through the interior space of the motor case”. Claim 12 depends from Claim 11. It is respectfully submitted that neither Helwig et al. or Kapka et al. discloses or suggests admitting and discharging air from outside the chamber, as presently claimed. In Kapka et al. the motor case (17) is located in the chamber and air is introduced from inside the chamber, not from outside, as presently claimed.

In view of such lack of disclosure, and Claim 12 depending from Claim 11, removal of this rejection is respectfully requested.

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Claims 13 and 14 are rejected under 35 U.S.C. §103(a) as being unpatentable over Helwig et al. as applied to Claim 11, and further in view of Kapka et al. and Blair (U.S. Patent No. 3,445,743). Reconsideration and removal of this rejection is respectfully requested.

In view of Claims 13 and 14 depending from Claim 11, which is discussed above, and the fact that Kapka et al and Blair do not disclose or suggest the features of Claim 11, removal of this rejection is respectfully requested.

Claims 15-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Barbera-Guillem in view of Weselak et al. Reconsideration and removal of this rejection is respectfully requested.

In view of Claims 15-17 now depending from Claim 1, which is discussed above, and the fact that Barbera-Guillem and Weselak et al. do not disclose or suggest the features of Claim 1, removal of this rejection is respectfully requested.

In view of the aforementioned amendments and accompanying remarks it is believed that Claims 1-21 are now in condition for allowance. Allowance of Claims 1-21 is respectfully requested.

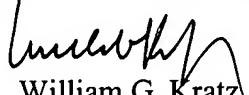
If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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